

# Michigan's Transportation Crash Profile

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Transportation Research Institute

Michigan Transportation Summit October 6, 2003

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## Outline

- Crashes and Crash Rates
  - All Crashes
  - Fatal and Serious Injury (KA) Crashes
  - Had-Been-Drinking (HBD) Crashes
- Pedestrians, Bicycles, Motorcycles
- Large Truck Crashes
- Rail-Road Crossing Crashes
- Safety Belt Use

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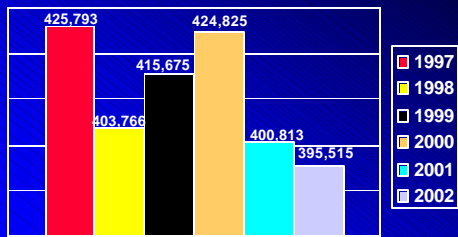
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## All Crashes, 1997-2002



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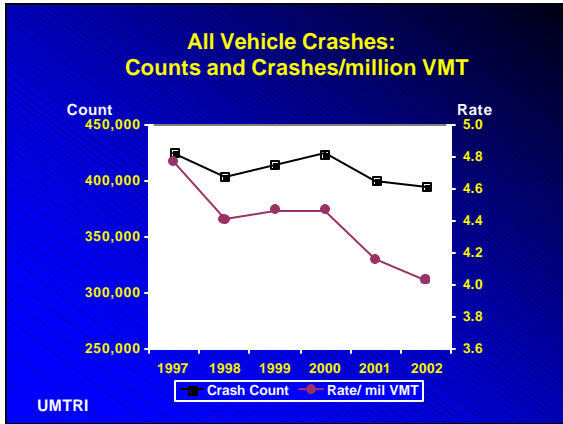
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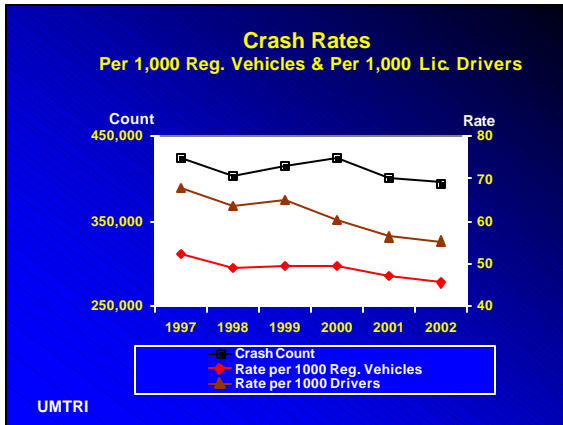
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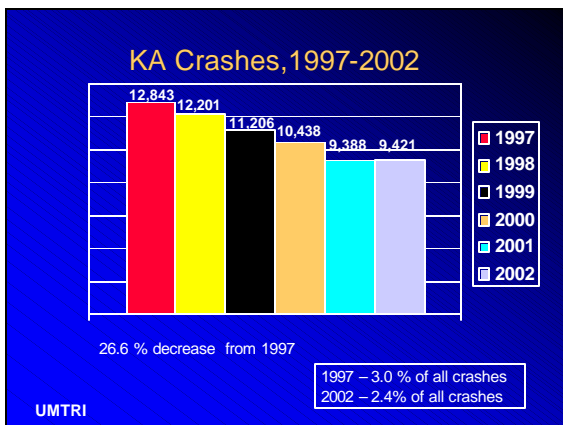
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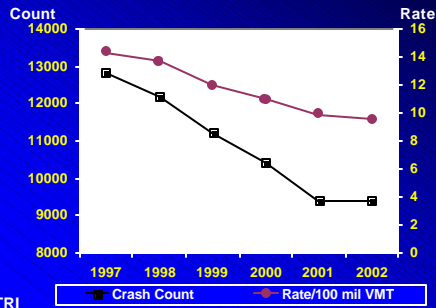
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### KA Crashes: Counts & Crashes/100 Million VMT



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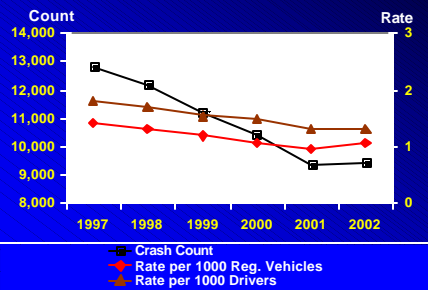
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### KA Crash Rates Per 1,000 Reg. Vehicles & Per 1,000 Lic. Drivers



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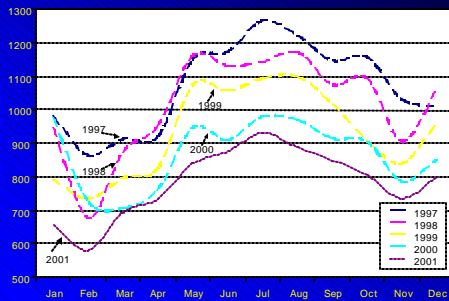
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### KA Crashes by Month and Year



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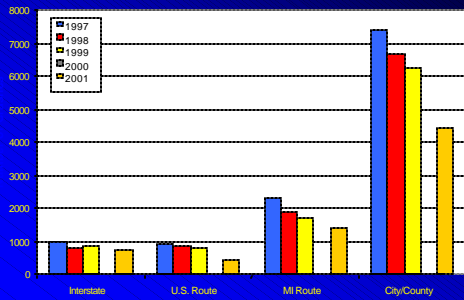
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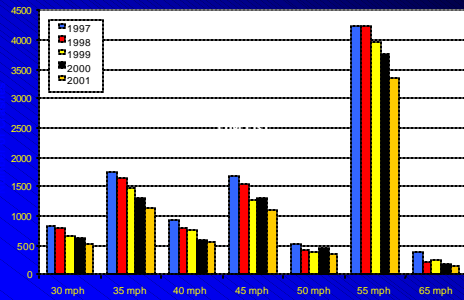
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### KA Crashes by Highway Class and Year



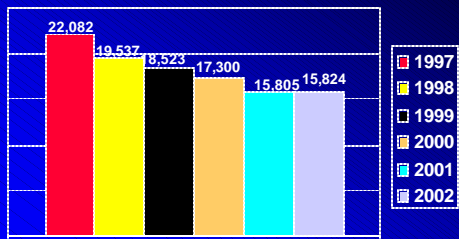
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### KA Crashes by Speed Limit and Year



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### Had-Been-Drinking Crashes, 1997-2002

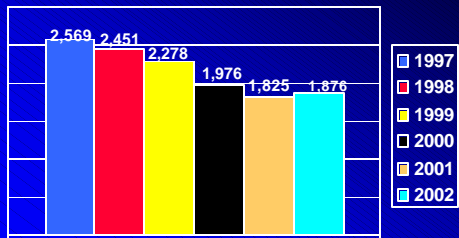


28.3% decrease from 1997

1997 - 5.2% of all crashes  
2002 - 4.0% of all crashes

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## Had-Been-Drinking KA Crashes, 1997-2002



27 % decrease from 1997

1997 - 20% of all KA crashes  
2002 - 20% of all KA crashes

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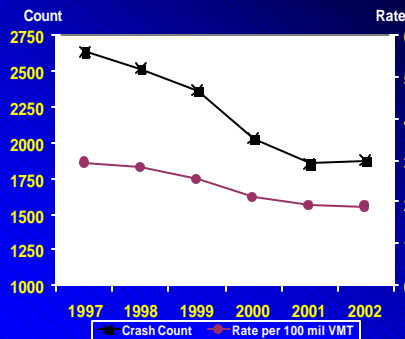
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## KA HBD Crashes: Counts and VMT Rate



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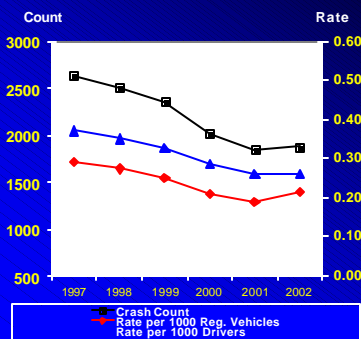
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## KA HBD Crash Rates Per 1,000 Reg Vehicles & Per 1,000 Lic. Drivers



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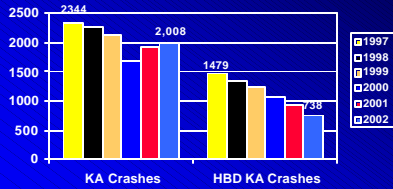
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## Off-Road KA Crashes

21% of all KA Crashes in 2002



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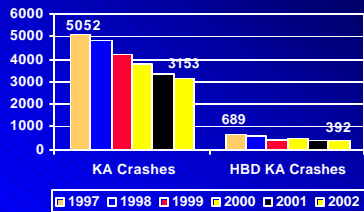
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## Intersection Crashes

33.5% of all KA Crashes - 2002



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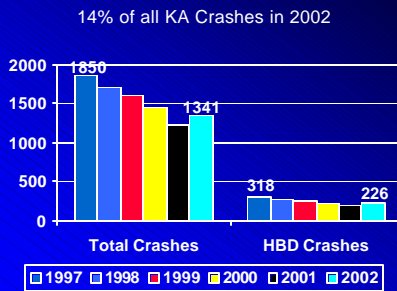
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## Head-on and across-median KA crashes

14% of all KA Crashes in 2002



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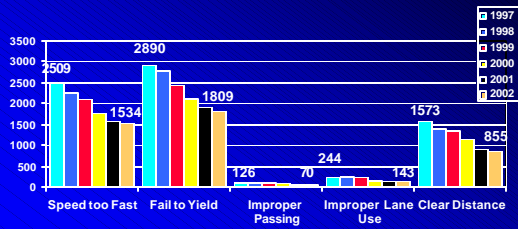
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## Hazardous Actions of Drivers in KA Crashes



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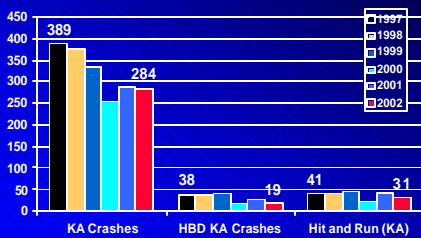
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## Bicycle KA Crashes



27% decrease from 1997

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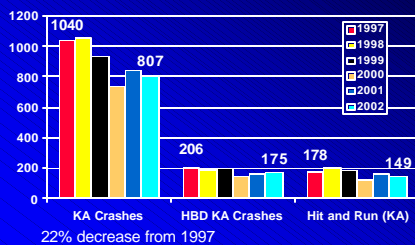
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## Pedestrian KA Crashes



22% decrease from 1997

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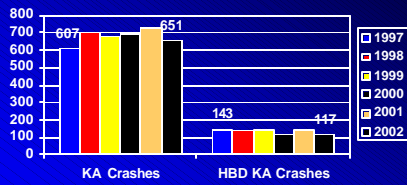
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## Motorcycle Crashes



7% increase in Motorcycle KA Crashes since 1997  
 45% increase in number of registered motorcycles  
 7.5% increase in motorcycle endorsements on driver license  
 ~45% of crash-involved motorcyclists do not have endorsement

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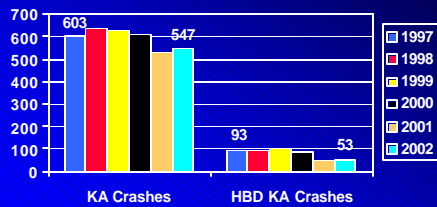
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## KA Large Truck Crashes



9% decrease from 1997

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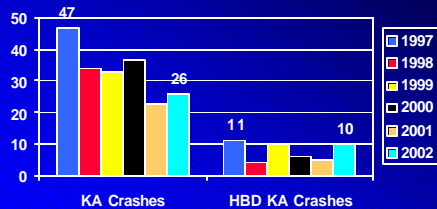
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## Railroad Grade Crossing Crashes



45% decrease from 1997

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## Safety Belt Use, June 2003 Observational Study

**Overall – 83.9%**  
**Drivers – 84.7%**  
**Passengers - 80.8%**

Passenger Cars	SUV	Van/Mini van	Pick-up Truck
86.6 %	85.8%	84.8%	73.3%

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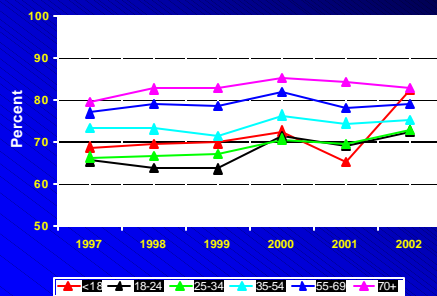
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## Proportion of Belted KA Crash-Involved Drivers by Age and Year



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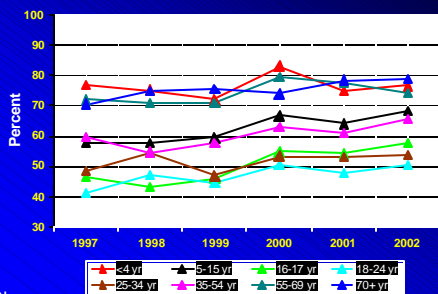
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## Proportion of Belted KA Crash-Involved Passengers by Age and Year



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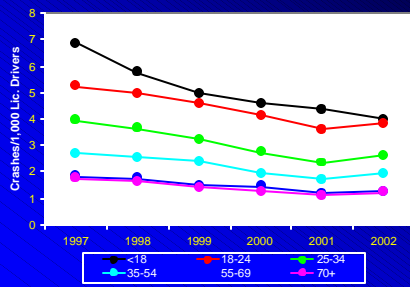
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## KA Crashes/1000 Licensed Drivers by Age and Year



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